recurrence of UTI within 3 months due to the same organism was frequent after fosfomycin use, this may be more related to host factors such as immunosuppression and comorbid conditions (e.g., upper UTI, diabetes, and genitourinary abnormalities) than poor efficacy of fosfomycin. However, fosfomycin susceptibility testing was not performed and there was significant variability in fosfomycin dosing frequency and duration. These medication-related factors, in addition to possible unknown drug interactions, could have contributed to failure of therapy. It is unclear whether other antimicrobial agents would have been more effective at preventing recurrences, but it is notable that new infections occurring within 3 months after fosfomycin therapy were generally due to more susceptible organisms.

A recent single-center study also looked at fosfomycin outcomes after treatment for UTIs due to MDR organisms, including vancomycin-resistant Enterococcus (9). Of the study's 41 patients, 15 were solid organ transplant recipients. In vitro testing revealed that most isolates (86% overall) were susceptible to fosfomycin. The microbiologic cure rate with fosfomycin was 59% and it correlated with susceptibility testing. This rate is higher than in our study, but the criteria for microbiologic cure were less stringent, as only a negative urine culture at the end of therapy and/ or no relapse or reinfection at 30 days was required. It is not clear how many patients actually had follow-up urine cultures beyond the end of therapy. Only 33% (5 of 15) of the solid organ transplant recipients experienced microbiologic cure and 27% of patients received combination antimicrobial therapy. Frequency of fosfomycin dosing was not noted (9).

Limitations of our study include the retrospective nature, small number

of patients, lack of fosfomycin susceptibility data, and variability in fosfomycin dosing. However, the use of fosfomycin appeared safe and some patients were able to clear their infection, thus avoiding toxicity and complications associated with parenteral therapy. In addition, subsequent infections were often due to more susceptible organisms. It is likely that fosfomycin will be increasingly prescribed as an oral option for treatment of UTIs due to MDR organisms; however, its efficacy of 31% reflects the need for more potent oral options to treat MDR UTIs. Prospective studies that involve larger numbers of subjects are needed to evaluate which patients, if any, may benefit most from fosfomycin treatment and to establish the optimal dosing frequency and duration of therapy.

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## Lymphocytic Lymphoma/Chronic Lymphocytic Leukemia in a Solid-Organ Donor: An Unestablished Risk In Elderly Donors

Jymphocytic lymphoma/chronic lymphocytic leukemia (LL/CLL) is the most frequent malignant lymphoproliferative disorder in the elderly in western countries. A family history of LL/CLL is

one of the main risk factors. More than half of the patients are diagnosed casually in initial asymptomatic phases of the disease (1, 2). The clinical course is heterogeneous, usually with a slow

evolution. New molecular prognostic markers, such as CD38 expression, have been associated with a more aggressive course (3). Autopsy studies have shown that 1).

We report the first case to our knowledge of a solid-organ donor with LL/CLL undetected at the time of organ procurement, whose allografts were implanted in three recipients.

The donor was a previously healthy 74-year-old Caucasian male who experienced brain death secondary to ischemic stroke in February 2010. The donor was evaluated as per protocol and no relevant or suspicious signs of malignancy were noted. After obtaining the family's consent, the liver and both kidneys were removed. The liver was implanted at one hospital and the two kidneys were implanted at a different center, both hospitals different to that where the organs were removed.

At the hospital where the renal transplantations took place, before transplantation, an allograft wedge biopsy was performed in both kidneys due to the age of the donor. The usual histologic analysis showed no significant alterations contraindicating transplantation.

The kidney transplant recipients were two women aged 66 and 71 years with end-stage renal disease secondary to lupus nephropathy and unknown cause, respectively. The immunosuppressive therapy included induction with anti-CD25 antibodies, tacrolimus, mycophenolate mofetil, and steroids. The posttransplantation course was satisfactory in both cases.

The liver recipient was a 62-yearold man with end-stage liver failure secondary to hepatocarcinoma. While reviewing the liver graft before implantation, an adenopathy was detected. The urgent histologic analysis was compatible with reactive hyperplasia without malignancy. The liver transplantation was performed, and the patient received immunosuppressive therapy with steroids, tacrolimus, and mycophenolate mofetil, showing a good evolution.

The histologic examination of the lymph node was extended and the final diagnosis, 4 weeks after the transplantations, was infiltration by LL/CLL without CD38 expression. The pretransplantation renal biopsies were reviewed and the immunohistochemical study revealed a focal monoclonal infiltration of CD20<sup>+</sup>, CD23<sup>+</sup>, and CD5<sup>+</sup> lymphoid cells compatible with LL/CLL.

The therapeutic options were widely discussed by a multidisciplinary medical team and communicated to the patients who signed an informed consent. The management strategy finally adopted included (i) retaining the allografts grafts considering the posttransplantation time already passed and the absence of molecular markers of poor prognosis, (ii) reducing the immunosuppressive therapy, and (iii) performing an extensive study to rule out transmission of the disease to the recipients. Kidney graft and bone marrow biopsies, chest, and abdomen computed to mographic studies, and peripheral blood immunophenotypic analysis showed no alterations. At the time of writing, the patients had functioning allografts. They underwent thorough regular examinations, including imaging and immunophenotyping studies on blood cells, which have not as yet revealed any evidence of transmission of a lymphoproliferative disorder.

The prevalence of LL/CLL increases with age, reaching 5% in 60- to 89-year-old persons (4). Three cases of transmission of LL/CLL from stem cell donors have been described (2, 4, 5). In all three, the diagnosis was performed late (2, 4, and 9 years after transplantation), when symptoms appeared. However, no cases involving solid-organ donors have been reported so far, and no information is available about the risk of transmission and the posttransplantation evolution in this situation. The risk of transmission is probably less in solid-organ donors than in stem cell donors. However, as the disease seems to develop several months or years after transplantation, cases of transmission of LL/CLL in solid-organ recipients may have been erroneously diagnosed as lymphoproliferative disorders of recipient origin.

To date, we have observed no relapse of the disease. Graft removal several weeks after transplantation would not have prevented the possible transmission of lymphoid cells, so we chose a conservative approach maintaining the grafts and reducing the immunosuppression. We also monitor the patients closely and will continue to do so over the long term given the risk of late appearance of LL/CLL.

Considering the increasing donor age, the unnoticed transmission of these hematologic disorders may represent an as yet unestablished risk. The need for a more thorough screening of elderly stem cell donors is already being called for (2, 4, 5). In elderly solid-organ living

donors, it may also be convenient to include in their evaluation more sensitive methods for the diagnosis of this occult hematologic disease.

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